



UNITED STATES PATENT AND TRADEMARK OFFICE

elm

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,969	03/07/2005	Guobiao Zhang	P70465US0	7961
136 7590 05/15/2007 JACOBSON HOLMAN PLLC 400 SEVENTH STREET N.W. SUITE 600 WASHINGTON, DC 20004			EXAMINER LUKS, JEREMY AUSTIN	
			ART UNIT 2837	PAPER NUMBER
			MAIL DATE 05/15/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/526,969

Applicant(s)

ZHANG, GUOBIAO

Examiner

Jeremy Luks

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-3 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by New (733,330). New teaches a muffler (Figure 1) comprising a casing within which are a gas inlet (A), a gas chamber (B) and a gas outlet (D), characterized in that a throttling device (H, C') is located in a gas flow route and controlled by self-energy of the gas flow (Page 1, Lines 90-104), wherein a cross sectional area of the gas flow of the throttling device (H, C') reduces when energy or pressure of the gas flow increases (Page 1, Lines 90-104); wherein the throttling device (H, C') controlled by self-energy of gas flow (via contact with #G) is a pressure reducing valves structure; wherein the pressure reducing valves structure includes an adjusting device (F²) and an open and close throttling member (H) and a fixture (C'); and wherein the structure of the open and close member (H) is characterized in that a cross sectional area of its first surface (#H, upward facing surface) subjecting to gas pressure from the gas inlet (A) is larger than a cross sectional area of its second surface (#H, downward facing surface) that is opposite to the first surface (#H, upward facing surface) and exposes to the gas outlet (D).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over New (733,330) in view of (Schumacher 2002/0175022 will be used as a translation and will be referred to as Schumacher herein) and Murray (3,219,144). New is relied upon for the reasons and disclosures set forth above. New further teaches an adjusting device comprising a spring (F^2) and a connection lever (F) connected in series, and an open and close throttling member (H) and a fixture (C'); and wherein the structure of the open and close member (H) is characterized in that a cross sectional area of its first surface (#H, upward facing surface) subjecting to gas pressure from the gas inlet (A) is larger than a cross sectional area of its second surface (#H, downward facing surface) that is opposite to the first surface (#H, upward facing surface) and exposes to the gas outlet (D). New fails to teach adjusting device comprises a manual adjusting device and an energy sensor diaphragm, which are connected in series. Schumacher teaches an adjusting device comprising a spring (Figure 2, #12), an energy sensor member (19) and a connection lever (13), which are connected in series. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of New, with the apparatus of Schumacher to provide an adjusting device in communication with engine operating conditions that is controlled by the engine

Art Unit: 2837

operating conditions by way of a pressure sensing diaphragm, improving New's teaching of varying the spring strength to control the valve (New, Page 2, Lines 13-17). Murray teaches a manual-adjusting device (Figure 1, #16) (Col. 1, Line 70 – Col. 2, Line 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of New as modified, with the apparatus of Murray to adjust the tension of the spring.

Response to Arguments

3. Applicant's arguments with respect to claim 1-8 have been considered but are moot in view of the new ground(s) of rejection. The Examiner considers the obvious combination of New, Schumacher and Murray to teach all of the limitations as claimed by Applicant. With respect to the combination of New, Schumacher and Murray, manual adjustment of the spring tension will allow for fine-tuning of the muffler sound and operating conditions. Further, it has been held that the provision of adjustability, where needed, involves only routine skill in the art. In re Stevens, 101 USPQ 284 (CCPA 1954).

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2837

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Luks whose telephone number is (571) 272-2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2837

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy Luks
Patent Examiner
Art Unit 2837
Class 181


LINCOLN DONOVAN
SUPERVISORY PATENT EXAMINER